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R5-8505-06

US EPA RECORDS CENTER REGION 5

491540

ECOLOGY & ENVIRONMENT, INC.

3/4/86

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Site: Amoco Oil Company

A) River front Site

B) Main Office (WWTP)

C) Main Plant (Refinery)

Arrived at site: 8:50 A.M.

Weather: overcast, cool 40°F

Site Representatives:

Dave Curnock - FIT / E+E

Ron Boek - FIT / E+E

Gregory Wurtz - Environmental Consultant

Richard A. Sumner - Environmental Engr.

I. Riverfront Site

Ponds 1-4 → DAF Float from WWTP

Amoco wants to stabilize wastes &

store in pond 5. Amoco doesn't

feel future monitoring is necessary -

they want a clean closure. They don't

feel GW monitoring may be necessary in

future - for this reason. Part B has

not been approved.

However, ponds 1-4 are under RCRA

monitoring.

Amoco verified drums were in site, but all drums were removed during closure.

Waste Quantity - Report (1) Andrews says 40 million ft^3 .

Wurtz question 40 M ft^3 , since this may have included water in impoundments

26 acres - approx depth at 10ft max.

Arrow questions Andrews Report (1)

\therefore 103C appears accurate in this respect.
(e.g. $\sim 10,000,000 \text{ ft}^3$)

Asked if ponds were ravine or excavated areas?

Ponds 1-5 borrow pits \rightarrow used for Levee which separates ponds 1-8 from rest of plant.

G. Known Releases to Environment

(1) 1973 - flood (2) GW monitoring.

No wastes accepted in area post RCRA other than DAF \rightarrow 1981 (non-listed)

Next, talked about 3-4 acre landfill
NW of Riverfront site

Dates of Waste - 1973-1978
not confirmed or denied, but
both reps assumed accurate

Spent Catalyst - $AlCl_3$ from
butene polymerization ~~waste~~ process
 $AlCl_3 \xrightarrow{H_2O} AlOH + HCl$

Wastes: 1) Spent catalyst
2) Filter material (clay)
(containing polybutene)

Waste Amount - Unknown - river
flooded away entire area.

Presently, much less. However,
- Amoco Couldnt estimate amount.

They did venture to say depth of disposed
wastes 3 ft. (max)

Report 3 - John Matthes (after
Andrews Report) - 1981 5

7 Borings in 3-4 acre landfill
12-19.5 ft.

- 3.4 acre l.f. (⇒) RODA (Red Oil Disposal Area)
says 1.5-5 ft in depth.

Oreg Wnty will try to send some type of
analysis of the spent catalyst (RODA).

G. Known release to environment due
to several floods.

RCRA Regulations:

10 RCRA wells in uppermost aquifer
(~~they feed in perched table ~30 ft.~~)
7 RCRA wells in perched zone ~15 ft.)

* Have agreed with ICPA about monitoring
closed 26 acre landfill. (Would this
make this CERCLA/RCRA??).

4 Monitoring Programs.

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1. Upper / Lower Aquifers

1 set for RCRA

1 set for closed 26 acre Landfill

Upper = Perched Table

Possibly sample these wells for closed disposal area? Are they regulated? Where does state come in?

They'll (DMDC) send a copy of quarterly analysis for past year.

26 ACRE CLOSURE

Arrow was required to clean up floating ponds. Arrow come up with plans, no enforcement.

All ponds lined - natural clay barrier. Slurry wall average 30-35' deep / 30" in width.

Slurry wall completed 1982. . Began with Andrews Report in 1980.

II. MAIN OFFICE / WWTP SITE

Closed as RCRA site - Plans approved -
final inspection, etc.

Certification of Closure - 10-24, 1984.

Oct 7, 1985 WWTP turned over to
City of Wood River - City
utilizes ponds 6-8 in case of
emergency. Have yet to use them,
but will in the future.

Office Bldg ⇒ Madison County.

Amoco supplied us with 103C
for Main Office / WWTP.

Amoco did borings in this area
& samples showed nothing. (No Lead).

Greg Wurstz will try to get us
copies of samples.

Leaded sludges is a questionable
term. Tanks stored finished gasoline

in tanks, & \therefore there would be 8
minimal sludges present. Most likely
clean-up contained ~~sludges~~, scale, rust,
etc.

Aggression { Entire site is fenced/guarded 24 hrs.
ONLY site open to access is 3-4 acre
landfill - but this is patrolled

Boring Samples @ Main Office / WWT P site.
↳ 3 locations @ each tank
Probably 3 boring each location.
 \therefore Total 9 borings

D. Dates of Handling - 1951-80
Years of Tank Operation verified

F. Waste Quantity: Minimal Quantity.
Cleared approx. @ 8-12 yrs., possibly
1 barrel/tank.

G. Disposal by burial - max depth = 3ft.

III. Main Plant Site

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RCRA #1 - SOUR water - high in sulfide / reactive

RCRA #2 - phosphorous pentasulfide surface impoundment

RCRA #3 - chop plant - treated heavy oils (heater) for sulfide w/ lead in process. Wastes hazardous due to EP Tox (Pb) wastes stored in Tanks.

#1 & #2 have approved plans, but actual work not yet started.

#3 almost completed.

#4 - Line Bags in dumpsters (1)

** Refer to plot map for locations RCRA 1-4.

#5. $AlCl_3$ treatment - spread out & spray w/ H_2O \rightarrow sewer.

#4 continuing - still active
Will continue to use

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#5 - Submitted plan but not formal approval - Awaiting certification for closure.

CERCLA sites

#1 - Sludges from one cleaning^{**}
Volume - 30,000 ft³ (max)^{*}
Type - ~~RCRA~~ RCRA (listing)
K051

* Volume estimated from sludge box measurements
120' x 50' x 5' (Depth) = 30K ft³

K051 - Lead, (No chromium), some organics.

waste landfilled & presently under water (partially). No liners, no cover cap.

** One time disposal

#2 Spray Pond Dredgings / Sour Water

SPD - Type - Sludges from spray pond areas. (sour water / sulfide)

Quantity - sludge - 3ft. depth

$$350' \times 150' = 52,500 \text{ ft}^2 \times 3 =$$

$$157,000 \text{ ft}^3 \cdot (.01) = \underline{\underline{1,570 \text{ ft}^3}}$$

* Estimation from plot map

Sludges - 157,000 ft³ as pumped

20% there = 31,500 ft³ (now)

1,570 ft³ solids.

No levees, no caps. Possible diking

SW - Type - H₂S / NH₃ (LIQUID)

separate from the dredgings

No diking separating dredgings from sour water.

#3 - Filled in API Separator Box 12

- Unknown whether cleaned prior to being filled in for use as parking lot.

Max quantity / depth = 1 ft.

120' x 50' x 1 ft = 6,000 ft³ max

Type = K051

No lines - Area is now parking Lot.

All 3 areas above are shown in E+E's file 103C.

There are 2 other areas (e.g. CERCLA #4 & #5).

#4 2 Pits - spent filter material plus possibly off-spec additives - (e.g. calcium sulfonates, calcium phexates).

- Pits were excavated, filled & concreted over -

(1981)

Borings from Mathes Report gives

estimate of type (lab results), quantities

Pits were unlined.

- Probable that waste quantity was
~~#5~~ minimal

Greg Wartz will try to get us dimensions
of pits.

CERCLA #5 - Leaded Tank Bottoms

Very similar to Main office IWWTP
site. 3 Tanks which stored
finished gasoline. Tanks probably
from 1930's →. No sampling, borings.
Smaller Tanks.

- Waste Quantity unknown - "possibly
several drums" of sludges.

* 280 Employees / 24 hr.

Left for lunch @ 12:00 P.M. Returned at
1:00 P.M. for visual inspection.

- CALIBRATED EQUIPMENT.

1. HNU calibrated @ 69 ppm @ SPAN = 9.8
2. Explosimeter - 40% LEL using 2% CH₄

#1 North View old RODA

#2 South view RODA

#3 South view closed landfill
power lines running across.

#4 NO PICTURE

#5 Lagoons 1+2 West view

#6 WWTP devoted to city east view

#7 SW view of Lagoon 3+4. Gray berm
in rear separates 3+4 from surge
area - ponds 6-8

#8 View of Lagoon #5 - Projected
landfill for Chemfix[®] stabilized
sludges from Lagoons 1-4 - NW view

#9 Subcell of Lagoon 5 ready to
receive - composite liner - HDPE
on top of 2' compacted clay underneath
leachate collector (sand, HDPE) protected
by clay. West View

#10 North View Pond 6-8 - WWTP Surge
area

#11 Northwest view of Ponds 6-8.

#12 - SW view of 3 tanks used to
store finished gasoline - Supposed area
for leaded tank bottom disposal
(Main office (WWT) site)

#13 } Refer to as CERCLA SITE #5 in notes
~~#11~~ } Supposed Leaded Tank Bottoms
~~#10~~ } SW view

#14 Refer to CERCLA SITE # 2 in notes
spray pond dredgings - sour water
ESE view

(sour water)
#15 SW pond in forefront - "Unknown
Disposal area in background" - ESE view

#16 Unknown Disposal Area - Type &
Quantity unknown. NW view

#17 Refer to CERCLA Site #1 - Sludges from
one-time cleaning of API Separator
sludges. South View

#18 CAWP Site - Refer to CERCLA site #4

- Pits located in this area - East View 16

19 - Refer to CERCLA site #3

Parking Lot now East View

Site Inspection Concluded 3:00 PM

3/4/86 Ronald E Boek / FIT